

## REMARKS

### The Claims

#### Claims 1-28:

Examiner rejected claims 1-28 as anticipated by Hurd (US 6,242,915). Applicant has amended claims 1, 11, 20, and 25 to recite "wherein the waveform simulates a waveform of a subject undergoing a magnetic resonance scan." Support for these amendments is found at, e.g., p. 3, lines 19-24; p. 3, line 30 to p. 4, line 3; and p. 4, lines 18-19, 27-31.

Hurd does not disclose a waveform generator "wherein the waveform simulates a waveform of a subject undergoing a magnetic resonance scan." By contrast, Hurd discloses a field-frequency lock system using a microcoil as a waveform generator in performing a scan of a real sample. In this field-frequency lock system, Hurd discloses using the microcoil with a "reference frequency at the resonant frequency of the sample." (col. 4, line 64 to col. 5, line 44). Hurd discloses using the microcoil in this manner "to measure variations in the polarizing magnetic field strength  $B_0$  and produce a corrective signal." (col. 4, lines 1-4). Thus, Hurd discloses using the microcoil in a different way and for a different purpose than the claimed invention. Hurd does not disclose use for simulation of a subject undergoing a magnetic resonance scan; rather, Hurd discloses performing a scan of a real sample using a microcoil as part of a frequency-lock system.

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#### Claims 29-32:

Examiner rejected claims 29-32 as unpatentable over Hurd in view of Schramm (US 4,014,109). Applicant has amended claim 25, on which claims 29-32 depend, to recite "wherein the waveform simulates a waveform of a subject undergoing a magnetic resonance scan." Neither Hurd nor Schramm disclose "wherein the waveform simulates a waveform of a subject undergoing a magnetic resonance scan." Thus, Hurd cannot be combined with Schramm to meet all the limitations of the claims 29-32 because even taken together (assuming without conceding that a person of ordinary skill in the art would be motivated to combine them) the two references do not disclose the limitations of the rejected claims.

Claim 27:

Claim 27 has been amended to write out the abbreviation "MR Rf," which stands for "magnetic resonance radio frequency."

New claims 33-40:

Applicant adds new claims 33-40. Claims 33-36 are respectively dependent on claims 1, 11, 20, and 25. Claims 37-40 are also respectively dependent on claims 1, 11, 20, and 25. New claims 33-36 recite, "wherein the subject is a real subject." Support for this limitation is found at, e.g., p. 3, lines 19-24 and p. 4, lines 18-19. New claims 37-40 recite, "wherein the subject is constructed by computer programming." Support for this limitation is found at, e.g., p.3, line 38 to p. 4, line 3. Since the new claims are dependent on claims 1, 11, 20, and 25, Applicant submits that these claims should also be allowed, as Applicant explains above.

Additional remarks:

Applicant has not addressed all of Examiner's positions because Applicant believes its amendments have made it unnecessary to address certain positions. In doing so, Applicant does not imply agreement with Examiner and does not intend any surrender of rights. Applicant believes all claims rejected by the Examiner are allowable based on the above discussion. Applicant's amendments and new claims add no new matter.

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